STATEMENT OF LEGAL AND FACTUAL BASIS

Appalachian Plastics, Inc.
Glade Spring, Washington County, Virginia
Permit No. SWRO 11074

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Appalachian Plastics, Inc. has applied for a Title V Operating Permit for its Glade Spring facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact:_____ Date: November 13, 2001

Air Permit Manager:_____ Date: November 13, 2001

Deputy Regional Director:_____ Date: November 13, 2001

FACILITY INFORMATION

Permittee
Appalachian Plastics
P. O. Box 1044
Glade Spring, Virginia 24340

Facility
Appalachian Plastics, Inc.
34001 Glove Drive
Glade Spring, Virginia 24340

AIRS ID No. 51-191-0140

SOURCE DESCRIPTION

SIC Code: 3089 - Manufacture of plastic products, not elsewhere classified

Appalachian Plastics, Inc. manufactures fiberglass reinforced plastic products consisting of duct systems, tanks, water playground equipment and various other custom parts. The company utilizes several different processes to coat glass fibers with a resin mix depending on the type of product being produced. These processes include filament winding, pressure fed rolling, flow coating (flow chipping), Instant Start Device (ISD) chopping, impinged nozzle chopping, hand lay-up; spray-applied gelcoat and hand applied gelcoat. Volatile Organic Compound (VOC) and Hazardous Air Pollutant (HAP) emissions from each process occur during resin mixing, resin application and resin curing stages common to each process.

The facility is a Title V major source of VOC and HAP. This source is located in an attainment area for all pollutants, and is a PSD minor source. The facility is currently permitted under a Minor NSR Permit issued on March 1, 2001.

COMPLIANCE STATUS

The facility is inspected at least once a year. The latest inspection on file, performed on August 1, 2001, indicates no problems were noted at the facility in regard to all process operations.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION
The emissions units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Filament Winding Equipment (01 through 03)							
01	S1	Appalachian Plastics, Inc. filament winding machine, constructed 1975	250 lb/hr, output	None	None	-------	March 1, 2001
02	S1	Appalachian Plastics, Inc. filament winding machine, constructed 1979	250 lb/hr, output	None	None	-------	March 1, 2001
03	S1	Appalachian Plastics, Inc. filament winding machine, constructed 1995	247.5 lb/hr, output	None	None	-------	March 1, 2001
Pressure Fed Roller Equipment (04 and 05)							
04	S1	Glas-Craft PFR System, linear application, constructed 1997	33.5 lb/hr, output	None	None	-------	March 1, 2001
05	NB1	Glas-Craft PFR System, tank application, constructed 1998	33.5 lb/hr, output	None	None	-------	March 1, 2001
Flow Coater Equipment (06 and 07)							
06	NB2	Glas-Craft LPA-11-S/SP-85, constructed 1999	33.5 lb/hr, output	None	None	-------	March 1, 2001
07	NB2	Glas-Craft LPA-11-S/SP-85, constructed 1999	33.5 lb/hr, output	None	None	-------	March 1, 2001
Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date

ISD Chopper and Spray Equipment (08 through 10)							
08	S1	Glas-Craft ISD-H, constructed 1975	20 lb/hr, output	None	None	-------	March 1, 2001
09	S2	Glas-Craft ISD-H, constructed 1975	20 lb/hr, output	None	None	-------	March 1, 2001
10	S2	Glas-Craft ISD-H, constructed 1975	20 lb/hr, output	None	None	-------	March 1, 2001
Gelcoat Spray Equipment (11)							
11	NB2	Binks atomized spray, constructed 1968, unknown model	10 lb/hr, output	None	None	-------	March 1, 2001
Hand Lay Up Operations(12)							
12	-------	Manual resin application	280 lb/hr, output	None	None	-------	March 1, 2001
Impinged Nozzle Chopper Equipment, (13 through 18)							
13	S2	Glas-Craft, INDy Dispense Gun; to be installed	64 lb/hr, output	None	None	-------	March 1, 2001
14	S2	Glas-Craft, INDy Dispense Gun; to be installed	64 lb/hr, output	None	None	-------	March 1, 2001
15	S1	Glas-Craft, INDy Dispense Gun; to be installed	64 lb/hr, output	None	None	-------	March 1, 2001
16	NB1	Glas-Craft, INDy Dispense Gun; to be installed	64 lb/hr, output	None	None	-------	March 1, 2001
17	NB1	Glas-Craft, INDy Dispense Gun; to be installed	64 lb/hr, output	None	None	-------	March 1, 2001
18	NB2	Glas-Craft, INDy Dispense Gun; to be installed	64 lb/hr, output	None	None	-------	March 1, 2001

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

EMISSIONS INVENTORY

A copy of the 2000 permit application emission inventory is attached. Emissions are summarized in the following tables.

2000 Actual Emissions

	1999 Criteria Pollutant Emission in Tons/Year				
Emission Unit	VOC	CO	SO_2	PM_{10}	NO_x
01 - 03	21.76	-----	-----	-----	-----
04	0.06	-----	-----	-----	-----
05	2.35	-----	-----	-----	-----
06 - 07	1.91	-----	-----	-----	-----
08	0.43	-----	-----	-----	-----
09 - 10	0.28	-----	-----	-----	-----
11	0.26	-----	-----	-----	-----
12	0.45	-----	-----	-----	-----
Total	27.5	-----	-----	-----	-----

2000 Facility Hazardous Air Pollutant Emissions

Pollutant	2000 Hazardous Air Pollutant Emission in Tons/Yr
Styrene	17.89
Methyl Methacrylate	9.61

EMISSION UNIT APPLICABLE REQUIREMENTS - Facility-Wide Requirements (emission unit ID: 01 through 18)

Limitations

The following limitations are State BACT requirements from Conditions 3 and 4 of the Minor NSR Permit issued on March 1, 2001:

Condition 3 limits emissions from the operation of filament winding, pressure fed roller, flow coater, impinged nozzle chopping, hand lay-up, spraying and ISD chopping processes, 01 through 18, to the following:

Volatile Organic Compounds	96.09 lb/hr	116.91 tons/yr

Annual emissions will be calculated monthly as the sum of each consecutive 12-month period.

Condition 4 limits visible emissions from the facility's exhaust stack, S1, to 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.

Monitoring

The monitoring and recordkeeping requirements in Condition 5 of the NSR permit have been modified to meet Part 70 requirements.

VOC emission limits in the current NSR permit are based on resin throughput limits contained in the previous NSR permit for this source. However, resin throughput limitations were not used to limit the source's potential to emit in the current NSR permit because operating and production parameters are not readily limited due to the wide variety of resins and products and due to the unpredictable nature of this type of business. Therefore, emission limits coupled with a requirement to calculate daily emissions are used to restrict potential to emit. The permittee will be required to keep the records necessary for this calculation, including daily quantities and the VOC content of each resin used. Emission limits, in this case, are more easily enforceable than operating or production limits. Maintaining records of hourly and annual VOC emissions from the facility will monitor compliance with the VOC emission limits. Emissions will be calculated using methods and emission factors approved by the DEQ.

There is no monitoring for the visible emission requirement. According to the permittee, operation of the current processes will not result in visible emissions.

Recordkeeping

The permittee will record weekly and annual hours of operation of the facility. Annual hours of operation will be calculated monthly as the sum of each consecutive 12-month period.

The permittee will maintain Material Safety Data Sheets (MSDS) or other vendor information showing VOC content of each resin used at the facility.

The permittee will record weekly and annual throughput of each resin to each process. Annual throughputs will be calculated monthly as the sum of each consecutive 12-month period.

The permittee will calculate and record hourly and annual emissions of VOC from the facility. Emissions will

be calculated using methods and emission factors approved by the DEQ. Hourly emissions will be calculated weekly by dividing total weekly emissions by total weekly hours of operation of the facility. Annual emissions will be calculated monthly as the sum of each consecutive 12-month period.

The permittee will maintain records of emission factors and equations used to calculate emissions.

Testing

The permit does not require source tests. A table of test methods has been included in the permit if testing is performed. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The permittee will furnish written notification to the Director, Southwest Regional Office of the actual date on which installation of each of the six non-atomized mechanical resin applicators (impinged nozzle choppers, 13 - 18) commenced within 30 days after such date and the actual start-up date of each of the six non-atomized mechanical resin applicators (impinged nozzle choppers, 13 - 18) within 15 days after such date.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions, including those caused by upsets, within one business day.

FUTURE APPLICABLE REQUIREMENTS

The facility is a major source of volatile organic compounds and hazardous air pollutants (styrene and methyl methacrylate). Maximum Achievable Control Technology (MACT) standards for the reinforced plastics composites production industry, under 40 CFR Part 63 Subpart WWWW and 9 VAC 5 Chapter 60, are being developed. The facility will be subject to those standards when final and the permit re-opened for inclusion of those requirements.

INAPPLICABLE REQUIREMENTS

New Source Performance Standard (NSPS) Requirements for Polymeric Coating of Supporting Substrates in 40 CFR Part 60, Subpart VVV, and 9 VAC 5-50-410, are not applicable. This determination is based on the legal opinion by ShawPittman to the Composites Fabricators Association and the following differences between the fiberglass reinforced plastic manufacturing processes used by the applicant and the processes described in the Background Information Document (BID) for NSPS Subpart VVV:

- all coated materials discussed in the BID are polymers; the permittee's processes utilize monomeric styrene;

- the permittee's processes do not utilize solvents; the styrene monomer is liquid with physical properties sufficient for processing;

- there are no flashoff, drying or curing ovens associated with the permittee's processes; they are unnecessary due to the fact that no solvents are used that need to be dried and the styrene monomer is transformed to polystyrene upon heating the liquid in the forming die.

- the finished product is a structural component and completely rigid, not capable of being rewound and is essentially inflexible as it comes off the production line, and;

- the fiberglass-reinforcing matrix is not a substrate to be coated or merely impregnated, it is a critical, supporting structure.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation[1] (9 VAC_)	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
-----	Propane/natural gas-fired space heaters, 3 units	9 VAC 5-80-720 A.4	NO_x, CO	0.26 MMBtu/HR, each
-----	Propane/natural gas-fired space heaters, 6 units	9 VAC 5-80-720 A.4	NO_x, CO	0.25 MMBtu/HR, each

[1]The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The draft permit was placed on public notice in the Bristol Herald Courier Virginia/Tennessean from June 29, 2001, to July 28, 2001. No comments were received from the public.

Notices were sent to affected States, Kentucky, West Virginia, Tennessee, and North Carolina, no comments were received from affected States.

EPA Region 3 suggestions for clarity have been incorporated into Conditions III.A.1 and III.B.3.b of the Proposed Permit and discussion of VVV non-applicability in the Statement of Legal and Factual Basis.